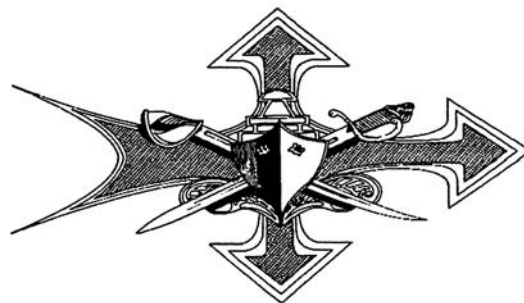


SHIPS' SAFETY BULLETIN

Prepared by Naval Safety Center
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JULY-SEPTEMBER 2006

Suggested routing should include CO, XO, department heads, division officers,
CMC, CPO mess, petty officers' lounge, work-center supervisors, and crew's mess.
Blanks provided for initials following review:

SAFETY PETTY OFFICER QUALIFICATION UPDATE

By HMC (SW) James Misa
Naval Safety Center

The Naval Safety Supervisor course (NAVEDTRA 14167), is a downloadable non-resident training course from the Navy advancement center's website: (<http://www.advancement.cnet.navy.mil>). It contains many of same fundamentals previously covered in the five-day (SPA) Safety Programs Afloat course (CIN-A-493-2099) taught by the NavOSHENVTRACEN.

To reduce redundancy of course content and training time, beginning in October 2006 division safety petty officers in afloat commands must complete the Naval Safety Supervisor course before taking the new two-day version of SPA course (the current five-day version will no longer be taught).

The Naval Safety Supervisor course will fulfill the fundamentals portion of the safety programs afloat PQS (NAVEDTRA 43460-4B) and provide a common baseline knowledge for taking the new two-day SPA course. Division safety petty officers are highly encouraged to complete the Naval Safety Supervisor Course as soon as possible after assignment, and to complete the remaining portion of the PQS (Watch station 301) within six months.

The new SPA course will be interactive and focus on the application of the fundamentals and implementation of shipboard safety programs. To ensure quality discussions and training effectiveness, an open book exam covering the fundamentals in the Naval Safety Supervisor course will be given at the beginning of the class. Failing the exam will result in the dismissal from the course.

You can request FY 07 quotas for the new SPA course via the Enterprise Naval Training Reservation System (ENTRS) at <https://entrs.chamb.disa.mil> after successfully completing the Naval Safety Supervisor course.

As required by OPNAVINST 5100.19D, fifty percent of each command's division safety petty officer must complete the SPA course.

Direct any further questions to NavOSH and Environmental Training Center.

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Electrical Safety Survey

By EMC (SW) James E. Simpson
Naval Safety Center

The electrical safety survey mainly consists of deck-plate training for crew members escorting the surveyor as he or she assesses electrical distribution areas. Meetings with the electrical division officer and the division chief usually take place before the survey to discuss the areas to be assessed. Our surveyor uses the electrical safety checklist available on our Naval Safety Center's website. (<https://www.safetycenter.navy.mil>).

The surveyor discusses with division personnel the most recent changes to electrical safety instructions, PMS, and message directives the command might not yet have implemented.

The tag-out program is assessed by reviewing the tag-out log for compliance with revision 1 to the Tag-out Users Manual (S0400-AD-URM-010/TUM) and spot checking the correctness of active tags. The ship's electrical safety program is reviewed to ensure proper personnel qualifications, tool issue room operation, and indoctrination/annual training.

During the survey, the electrical surveyor assesses the tool-issue locker, switchboard / load center spaces, galley, battery locker, repair lockers, bridge, and the weather decks. Although not a zone inspection, this walk-through highlights common material discrepancies and provides training opportunity for those involved with these systems and areas.

Problem: *Fuse panels repeatedly are found with the wrong fuses (over-fusing, under-fusing, civilian fuses vice silver plated MilSpec fuses, improperly rated fuses installed in circuits, such as 250-volt fuses in 440-volt circuits). Cover panels for fuse boxes and distribution panels are improperly labeled or missing labels for installed circuits.*



Reference: Chapter 300 and 320 of the Naval Ships Technical Manual (NSTM), paragraph 305e of the General Specifications for Overhaul (GSO) and PMS MIP 3301/002.

Recommendation: Develop training to ensure technicians recognize the wrong fuses and never insert improperly rated fuses without approval from a higher authority. Conduct intensive spot checks and periodic self-assessment of fuse and distribution panel material conditions.

Problem: *Electrical safety checks for portable and mobile electrical equipment continuously are found to be out of periodicity, have the wrong periodicity assigned, and equipment is often found with no attached safety-checked tag. Personal equipment routinely is found to be in use without appropriate approval.*

Reference: Chapter B7 of OPNAVINST 5100.19D, Naval Ships' Technical Manual (NSTM) 300, Electric Plant - General (Rev. 7), and MIP 3000/001.

Recommendation: Educate technicians to identify the difference between portable and mobile equipment and the appropriate maintenance requirements. Ensure all newly introduced shipboard portable and mobile equipment is taken to the responsible division to be safety checked and added to the appropriate equipment guide list (EGL) before operation onboard the ship. Personal electrical and

electronic equipment must pass a one-time safety check, have a safety check tag, and be approved by the electrical officer for shipboard use. Conduct extensive spot checks and remember that, before a cord is plugged in, the equipment must be safety-tagged.

Problem: *Galley ventilation thermostatic switches are found with either out-of-periodicity calibration stickers or no calibration stickers at all. In most cases, E-division does not have all switches listed on their EGLs resulting in non-accomplished PMS. Garbage-grinder safety interlocks are inoperative or bypassed, allowing units to operate outside of designed parameters.*

Reference: MIP 5121/004

Recommendation: It is imperative that all thermostatic switches be listed on an EGL since these switches are designed to prevent a ventilation fire. Thermostatic switches frequently are hidden by a drop ceiling with limited or no access to reach the unit. In this case, accesses may have to be manufactured.

Train food service attendants, culinary specialists, and the mess deck master at arms to recognize when garbage grinders are not operating properly. Conduct routine walk through assessments to ensure galley equipment is operated in a safe environment.

Other Concerns:

Weather-deck lighting and electrical outlet fittings are susceptible to water intrusion.

Reference: Chapter 300 of Naval Ships' Technical Manual (NSTM).

Shore-power rigging, unrigging, and tag-outs are not being done according to references below:

References: Engineering Operating Sequencing (EOSS), Engineering Operating Procedures (EOP), Shore Power Rigging and Unrigging (SPRU).

Battery lockers are found to be in disarray, have inoperable eyewash stations/deluge showers and are missing PPE and warning placards.

References: Chapter 313 of Naval Ships' Technical Manual (NSTM) and Chapters B5 and C23 of OPNAVINST 5100.19D.

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Here's a Fleet Note About recalled CO₂ Cylinders

By BMCS (SW) Charles Gum
Naval Safety Center

NAVIP 072331Z FEB 02 (NOTAL), and the January/February 2002 Defective Material Summary (DMS), reported that defective CO₂ cylinders for the Mk-1 and abandon ship life preservers were in the supply system. A February 02 stock screening advisory requested the fleet to inspect all CO₂ cylinder stock for the following four cage codes and/or contractors: Jefferson Metal Stamping (0ZGE6), Sparklet Devices, INC. (87286 and 50527), and SDI INC. (0XML1). The CO₂ cylinders (NSN 4220-00-543-6693 and NSN 4220-00-372-0585) are used in the Mk-1 and abandon ship life preservers and were included in this screening advisory. During safety surveys, we have found many Mk-1 and abandon ship life jackets with these CO₂ cylinders installed.

Supervisors must inspect Mk-1 and abandon ship life preservers to see if they have the recalled CO₂ cylinders installed. If your cylinders are "Recalled," do not use them!

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Industrial Hygiene Surveys

By LCDR Jennifer Gelker
Naval Safety Center

Industrial hygiene surveys. Who needs one? What requires my unit to have one? How often are they required? When should we schedule it? Where can my unit get one?

Industrial hygiene (IH) surveys are comprehensive exposure assessments of the workplace. IH personnel anticipate, recognize, evaluate, and make recommendations to control unacceptable workplace exposures. The goals of the IH survey are to assess potential health risks and make recommendations to control those risks, to establish and document historical exposure levels, to ensure compliance with safety and health exposure limits, and to provide the basis for medical surveillance examinations. The IH survey identifies required PPE; operations which require respirators and what type of respirators; noise hazardous locations; adequacy of ventilation systems; and personnel for inclusion in medical surveillance programs such as hearing conservation, asbestos, and sight conservation. All-in all, it is a great tool for developing your safety and occupational health and operational risk management programs.

Every Navy command is required to have an IH survey. Baseline and periodic IH afloat surveys are required by paragraph A0304 of OPNAVINST 5100.19D. Interim Change 3 to OPNAVINST 5100.19D reinstated the periodic requirement for an update at least every two years. ALSAFE 82/05, COMNAVSAFECEN 271739Z SEP 05, is Interim Change 3 to OPNAVINST 5100.19D.

Local medical treatment facilities (MTF) (either naval hospital or branch medical clinic) or environmental preventive medicine units, (EPMUs) provide commands with an IH survey. Schedule surveys through the IH department. Most MTFs or EPMUs prefer to have at least a three-month and preferably six-month lead time for scheduling the survey.

NavOSH, hazmat, and Medical Survey

By HMC (SW) Misa
Naval Safety Center

The Navy occupational safety and health (NavOSH), hazardous material (hazmat), and medical programs survey consists of a review the ship's baseline industrial hygiene (IH) survey report to identify specific work processes and NavOSH programs related to your ship. Based on this report, we evaluate the ship's requirements for hazmat, respiratory, sight, and noise-protection programs, along with other required medical surveillance programs including asbestos, cadmium, and lead.

The surveyor then conducts a walk-through of hazmat and flammable-storage spaces, the paint-locker, laundry, galley, medical and dental, and repair shops like the machine shop and the HT shop. At each work center, the supervisor should accompany the surveyor. During the walk-through, the surveyor will point out safety shortcomings and hold informal training in each respective area. We will assess eyewash stations to ensure they are working as designed, are readily accessible, are equipped with the proper signage, and that PMS responsibility is assigned and is accomplished. The surveyor will observe work processes to determine if personnel are wearing required personal protective equipment.

The surveyor also interviews medical department representatives (MDR) to assess the ship's heat, hearing-protection, and medical surveillance programs for compliance. Medical battle dressing stations will be assessed for proper material condition. The surveyor will interview the respiratory protection manager (RPM) to evaluate the ship's respiratory protection program. Administration will be reviewed to ensure the ship complies with the requirements for medical screenings, and fit testing of respirator users. The storage location of respirators will also be assessed. The hazmat

portion of the survey consists of evaluation of hazardous material storerooms, and stowage throughout the ship.

Common Discrepancies

Problem: *Sight Conservation: Eyewash stations are missing, empty, obstructed, broken, or do not provide the minimally required volume of water for 15 continuous minutes. Sailors routinely chip, paint, mix paint, or work with hazardous liquid chemicals without wearing the required eye protection (which can be chemical or safety goggles depending on the hazard).*

Reference: OPNAVINST 5100.19D, Chapters B5 and B12.

Recommendation(s): Make sure surface ship eyewash stations are installed in all main and auxiliary machinery spaces, medical, chemical labs, paint lockers, hazardous material storerooms, and where corrosive chemicals are used. Make sure eye-wash station PMS is an assigned responsibility. Make sure Sailors who work in eye-hazard areas, and/or with hazardous materials or chemicals, know the hazards associated with these materials. They must also know they need to wear prescribed goggles, chemical-resistant gloves, and other required PPE. They must also understand material safety data sheets (MSDSs), and know the location of the nearest eyewash stations.

Problem: *Respiratory Protection: Personnel routinely are issued respirators without being medically cleared or properly fit tested for respirators. The respiratory protection manager (RPM) does not maintain inventory control over respirators, and respirators are stored in paint lockers, workshops and throughout the ship. The RPM doesn't maintain two different respirator brands and three sizes and respirators are not properly cleaned or stored.*

Reference: OPNAVINST 5100.19D, Chapter B6.

Recommendation(s): The RPM must attend a respiratory-protection training course. Make sure inventory-control and accountability are carried out for respirators and that crew

members are medically cleared, trained, and fit-tested before being issued respirators. Base respiratory usage on the findings in the baseline industrial hygiene survey.

Problem: *Medical Surveillance: Personnel requiring placement into medical surveillance programs as required by the ship's baseline industrial hygiene survey have not been enrolled by the medical department representative (MDR). Additionally, those previously enrolled in the Asbestos Medical Surveillance Program (AMSP) do not always continue their enrollment, as applicable. Medical screenings for respirator uses also has not been accomplished.*

References: OPNAVINST 5100.19D, Chapters A3 and B6, and the ship's baseline industrial hygiene survey.

Recommendation(s): Medical department personnel shall ensure enrollment of personnel into medical surveillance programs, and the ship's MDR shall maintain a tickler of crew members enrolled in all medical surveillance programs, including AMSP and respiratory protection, and make sure Sailors receive their periodic physicals as required.

Problem: *Flammable storerooms had incompatible items stored together, expired items, numerous spills, and items were not secured sea properly.*

Reference: OPNAVINST 5100.19D, Chapter 23, and Naval Ships' Technical Manual (NSTM), Chapter 670.

Recommendation(s): General housekeeping is needed and inventory control is the key to proper management.

The ship's baseline industrial hygiene survey provides the necessary guidance for program management. Self-assessment is the key to identifying areas that need improvement, and processes that need implementation.

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Are Your Deck Bills Up-to-Date?

By BMCS (SW) Charles Gum
Naval Safety Center

Does the abandon ship bill list methods of releasing lifeboats? Are boat capacities and designated lifeboats listed along with a list of abandon-ship stations? Paragraph 640 of the OPNAVINST 3120.32C, *Standard Organization and Regulations of the U.S. Navy*, requires that you include this information in your general emergency bills.

The Boat Bill should indicate the maximum personnel-hoisting and water-borne capacities of all lifeboats. Additionally, are all Sailors assigned as boat crew members qualified and officially designated as second class, or above, swimmers? Are there provisions for inspecting the wire rope for proper spooling on the cable drum before and during hoisting and lowering? OPNAVINST 5100.19D, *NavOSH Program Manual for Forces Afloat*, and Chapter 583 of the Naval Ships' Technical Manual (NSTM), *Boats and Small Craft*, both require you to include information in your boat bill.

These are just some of your ship's operational bill's you periodically should review and keep current.



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CNSF Ship Safety Excellence Award Update

By HMC (SW) Misa
Naval Safety Center

We receive numerous communications regarding the requirements for the ship safety excellence award.

COMNAVSURFOR 221546Z JUN 06

amplifies on the requirements from SURFTRAMAN for the ship safety award.

Some of the requirements for the award include:

- A formal safety center survey was conducted within the last three years
- The safety officer is a graduate of afloat safety school
- Two formal safety stand downs were conducted during the competitive cycle with results submitted to the ISIC
- At least one mishap reduction effort message or documentation of a best practice submitted during the competitive cycle to Naval Safety Center
- A satisfactory afloat hazardous material/waste program
- Effective NavOSH programs
- Documented safety council meeting and safety committee meetings
- Effective motor vehicle/off-duty and recreational program
- Completion of Afloat Safety Climate Assessment Survey (ASCAS) through the Naval Safety Center's website
- Satisfactory ORM program

These are just some of requirements in which I have highlighted to be competitive for this award requires effective leadership, management, and planning.

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Clean up Your Paint Locker!

By HMC (SW) Misa
Naval Safety Center

If your ship's paint locker looks like the picture below, it requires some specific attention. During safety surveys we often find paint lockers "maintained" in this condition. Good housekeeping with hazmat is not only essential in preventing fires but preventing injuries as well. We all should know the importance of properly securing for sea.



Besides stowage discrepancies, we find eyewash stations blocked, and/or inoperable. The proper personal protective equipment such as non-vented goggles, apron, and chemical gloves were not available. We frequently find ventilation and lighting inoperable and the proper CSMP actions have not been submitted for repair.

Proper supervision is required in these areas to alleviate these hazardous conditions. The bottom line is that any one these factors may lead to a mishap.

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ORM Integration and Application Course

By HMC (SW) Misa
Naval Safety Center

The operational risk management (ORM) integration and application course is a two-day class taught by the Transportation Safety Institute. According to paragraph 7h(3)(a) of OPNAVINST 3500.39B, commands are required to have one officer and enlisted member qualified as ORM instructors.

Qualified instructors are necessary to ensure all ships personnel on properly trained in operational risk management at indoctrination, safety stand downs, and during high-risk activities. Looking for ORM instructor quotas? You can reserve quotas online at <https://www.safety.navy.mil/ORM/request.htm> or by e-mail to theodore.wirginis@navy.mil. Here is the tentative schedule for FY 2007.

<u>Dates</u>	<u>Location</u>
6-7 November	Norfolk, Va.
13-14 November	San Diego, Calif.
20-21 November	Whidbey Island, Wash.
4-5 December	Pearl Harbor, Hawaii
11-12 December	Lemoore, Calif.
8-9 January	Norfolk, Va.
10-11 January	Norfolk, Va.
22-23 January	San Diego, Calif.
24-25 January	Port Hueneme, Calif.
7-8 February	Atsugi, Japan
12-13 February	Pearl Harbor, Hawaii
2-3 April	Norfolk, Va.
16-17 April	San Diego, Calif.
23-24 April	Mayport, Fla.
7-8 May	Agana, Guam
16-17 July	Norfolk, Va.
30-31 July	San Diego, Calif.

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Combat System Safety Survey Findings

By LCDR Joseph Mayers
Naval Safety Center

During afloat safety surveys, we often find ship's man-aloft programs do not meet the minimum criteria. Also, the ship doesn't comply with their own ship's instruction for going aloft. Common discrepancies are:

- Not having an established JQR/PQS for applicable personnel.
- Not tracking these same qualified personnel.
- No standardized aloft written safety brief.
- Sometimes no mention of the requirement for a safety brief or safety procedures in the instruction.
- Poor harness inventory, control or PMS before use.

Chapter C8 of the OPNAVINST 5100.19D, para 630.17 of the OPNAVINST 3120.32C, and article 400-3.5.1 of the Naval Ships' Technical Manual (NSTM) will provide the necessary guidance for aloft programs.

Also, we often find that required signs and placards are not posted or posted conspicuously in spaces containing electronic equipment in accordance with paragraph 305h of the *General Specifications for Overhaul of Surface Ships* (GSO), and articles 300-22.9.4, and 400-3.2.2 of the NSTM.

The required signs and placards in spaces containing electronic equipment consist of the following:

- Electrical and electronic safety precautions and equipment operating instructions. *Ref: GSO paragraph 305h*
- CPR resuscitation procedures. The CPR placards are required in each space. We recommend mounting the CPR placard close to the deck for ease of use in an emergency.
Ref: NSTM 300-2.9.4

- "Danger High Voltage" signs posted conspicuously within each entrance. This either can be on the door or conspicuously posted within the entrance. *Ref: NSTM 400-3.2.2*

The intent for conspicuous posting is that all personnel frequenting or working in the electronics and electrical spaces, especially "new Sailors" can readily see and identify these valuable safety aids without having to search the room. Minutes can save lives.

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Internal Hazard Reporting

By HMC (SW) James Misa
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Detection of unsafe conditions at the earliest period of time is considered the cornerstone of any effective NavOSH program. With this in mind consider these statistics? According to our statistics, 60 percent of ships we conducted safety surveys on did not successfully implement a process for internally reporting of hazardous conditions within their commands. Paragraph A0307 of OPNAVINST 5100.19D discusses proper internal hazard reporting procedures onboard your ship. Sailors can use OPNAV form 3120/5 (Safety Hazard Report) contained in appendix A3-A of the instruction to report conditions that need command attention. Daily eight o'clock reports is an effective method for routing reports. With an effective internal hazard reporting system in place we can reduce a lot of unnecessary mishaps.

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